



VIA ELECTRONIC FILING

March 4, 2019

Marlene Dortch Secretary Federal Communications Commission 445 12th Street, SW Washington, DC 201154

Re: Ex Parte Notification

ET Docket No. 18-295, Unlicensed Use of the 6 GHz Band; and

<u>GN Docket No. 17-183</u>, Expanding Flexible Use in Mid-Band Spectrum Between 3.7 and 24 GHz

Dear Ms. Dortch:

On March 1, 2019 Russell Fox of Mintz and I met with the following members of the staff of the Office of Engineering and Technology ("OET"): Julius Knapp; Ira Keltz; Jamison Prime; Michael Ha; Nicolas Oros; Karen Rackley; Barbara Pavon; and Bahman Badipour. OET staff Asapasia Paroutsas and Kevin Holmes participated by telephone. We discussed the above-referenced proceedings and displayed the attached presentation.

We commended the Commission on the release of the Notice of Proposed Rulemaking ("NPRM") in which the Commission proposes to make the 5925-7125 MHz band (the "6 GHz band") available for unlicensed services. We reiterated the importance of this proceeding for the American public – Wi-Fi Alliance's previously released *Spectrum Needs Study*^{1/} demonstrated that additional capacity is required to meet immediate needs and the 6 GHz band is uniquely suited to help meet those demands. We emphasized that Wi-Fi Alliance plans to introduce its Wi-Fi 6 certification program^{2/} to support the next generation of Wi-Fi connectivity – technology that will perform optimally in the wider bandwidths available in the 6 GHz band.

We stressed the importance of the Commission permitting the use of low power indoor ("LPI") devices across the *entire* 6 GHz band. Limiting LPI devices to two disjointed spectrum segments, totaling less than a third of the 6 GHz band, will restrict urgently needed channel availability and bandwidth. More fundamentally, there is no basis on which to preclude LPI operations in any portion of the 6 GHz band. Wi-Fi Alliance's comments in this proceeding

Wi-Fi Alliance, *Spectrum Needs Study* at p. 23, Feb. 2017, available at https://www.wi-fi.org/downloads-registered-guest/Wi-Fi%2BSpectrum%2BNeeds%2BStudy0.pdf/33364

https://www.wi-fi.org/news-events/newsroom/wi-fi-certified-6-coming-in-2019

have highlighted the many reasons LPI operations will not create harmful interference to incumbent users.^{3/} The scenarios suggested by others^{4/} under which harmful interference may occur are simply corner cases. They assume a compilation of extremely unlikely circumstances – location of the LPI access point ("AP) within the boresight of a microwave receiver; transmission from the LPI AP that is co-channel with the fixed service ("FS") station transmission; concentration of the LPI AP's power spectral density on the FS channel; transmission of the LPI AP signal at the precise moment the FS station is also transmitting; and transmission during multi-path fading – that will be highly unlikely to occur at once.

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Pursuant to Section 1.1206(b)(2) of the Commission's rules, an electronic copy of this letter is being filed in the above-referenced docket. Please direct any questions regarding this filing to me.

Respectfully submitted,

/s/ Alex Roytblat

WI-FI ALLIANCE

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Attachment

Cc: (each with attachment):

Julius Knapp Ira Keltz Aspasia Paroutsas Kevin Holmes Jamison Prime Michael Ha Karen Rackley Bahman Badipour Barbara Pavon

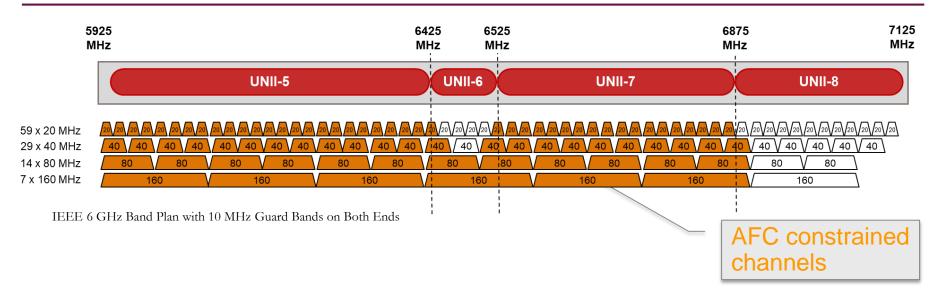
Nicolas Oros

^{3/} *Comments of Wi-Fi Alliance*, ET Docket No. 18-295 at 11-15 (Feb. 15, 2019).

See e.g. Comments of Fixed Wireless Communications Coalition, ET Docket No. 18-295 at 18-22 (Feb. 15, 2019).

FCC's NPRM: Unlicensed Use of the 6 GHz Band





- FCC's proposal to require Automatic Frequency Coordination (AFC) system for all U-NII 5 and U-NII 7 operations negates many potential benefit
 - No access to spectrum until AFC developed (e.g. may be for years)
 - Unlicensed equipment cost and complexity
- Proposed AFC requirement limits possibility for international harmonization

FCC's NPRM: Unlicensed Use of the 6 GHz Band



 LPI AP interference event requires cumulative alignment of all these probabilities <u>AND</u> exceedance of I/N=-6dB threshold at FS receiver

LOCATION

LPI AP
must be
located
within
boresight of
microwave
receiver

FREQUENCY LPI AP must

transmit cofrequency with FS channel transmission

<u>PSD</u>

LPI AP PSD must be concentrated on FS channel

TIME

LPI AP and FS transmissions must be coincident in time Note: Wi-Fi duty cycle is less than 1%

MULTIPATH FADING

LPI AP
interference
event must
occur during
multipath
fading

Extreme corner case is not a sound foundation for spectrum management policy

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